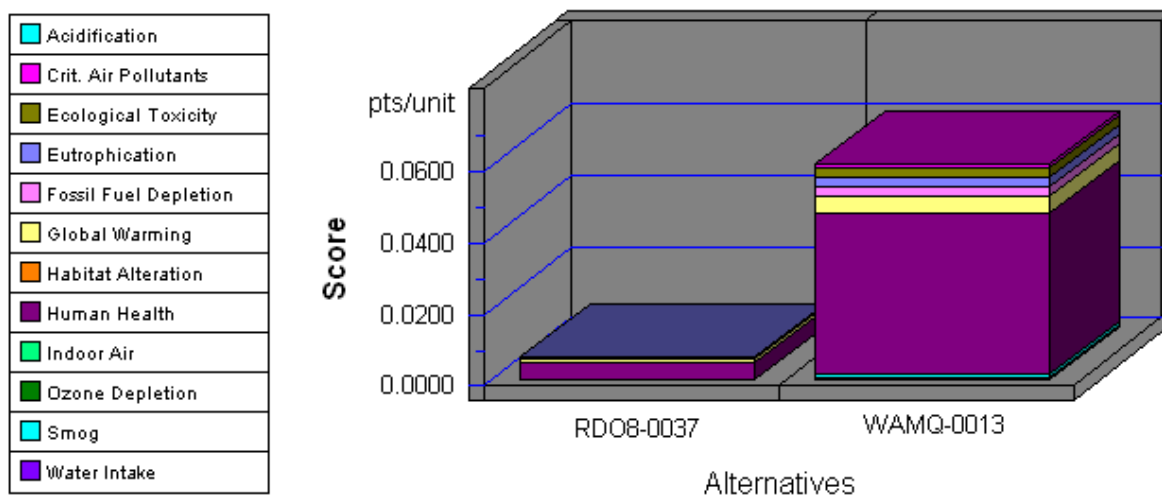


BEES Results: Hair Cleaning Products

Functional Unit: 1 gallon

Environmental Performance



Note: Lower values are better

Category	RDO8-0037	WAMQ-0013
Acidification--3%	0.0000	0.0000
Crit. Air Pollutants--9%	0.0001	0.0008
Ecolog. Toxicity--7%	0.0001	0.0029
Eutrophication--6%	0.0002	0.0026
Fossil Fuel Depl.--10%	0.0004	0.0027
Global Warming--29%	0.0009	0.0048
Habitat Alteration--6%	0.0000	0.0000
Human Health--13%	0.0046	0.0448
Indoor Air--3%	0.0000	0.0000
Ozone Depletion--2%	0.0000	0.0000
Smog--4%	0.0003	0.0008
Water Intake--8%	0.0001	0.0008
Sum	0.0067	0.0602

BEES Results: Hair Cleaning Products

Functional Unit: 1 gallon

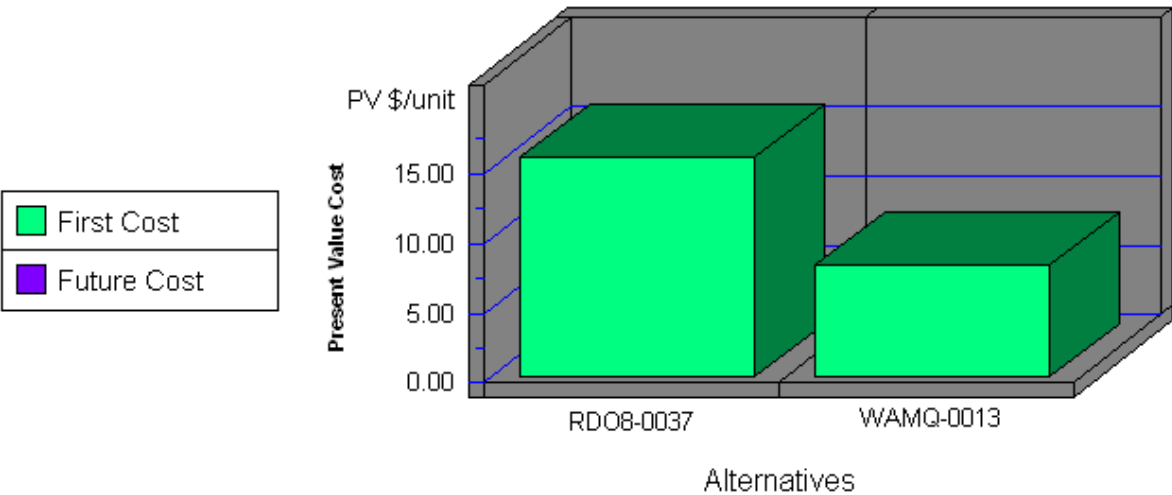
Hair Cleaning Products			
Impacts	Units	RDO8-0037	WAMQ-0013
Acidification	millimoles H ⁺ equivalents	3.77E+02	1.85E+03
Criteria Air Pollutants	microDALYs	1.47E-01	1.65E+00
Ecotoxicity	g 2,4-D equivalents	1.29E+00	3.38E+01
Eutrophication	g N equivalents	6.77E-01	8.44E+00
Fossil Fuel Depletion	MJ surplus energy	1.55E+00	9.41E+00
Global Warming	g CO ₂ equivalents	8.06E+02	4.21E+03
Habitat Alteration	T&E count	0.00E+00	0.00E+00
Human Health--Cancer	g C ₆ H ₆ equivalents	2.99E+00	2.92E+01
Human Health--NonCancer	g C ₇ H ₈ equivalents	4.11E+02	4.61E+03
Indoor Air Quality	g TVOCs	0.00E+00	0.00E+00
Ozone Depletion	g CFC-11 equivalents	0.00E+00	0.00E+00
Smog	g NO _x equivalents	9.59E+00	2.97E+01
Water Intake	liters of water	6.29E+00	5.53E+01
Functional Unit	-----	1 gallon	

1 Following are more complete descriptions of units: Acidification: millimoles of hydrogen ion equivalents; Criteria Air Pollutants: micro Disability-Adjusted Life Years; Ecological Toxicity: grams of 2,4-dichlorophenoxy-acetic acid equivalents; Eutrophication: grams of nitrogen equivalents; Fossil Fuel Depletion: megajoules of surplus energy; Global Warming: grams of carbon dioxide equivalents; Habitat Alteration: threatened and endangered species count; Human Health-Cancer: grams of benzene equivalents; Human Health-NonCancer: grams of toluene equivalents; Indoor Air Quality: grams of Total Volatile Organic Compounds; Ozone Depletion: grams of chloroflourocarbon-11 equivalents; Smog: grams of nitrogen oxide equivalents; and Water Intake: liters of water.

BEES Results: Hair Cleaning Products

Functional Unit: 1 gallon

Economic Performance



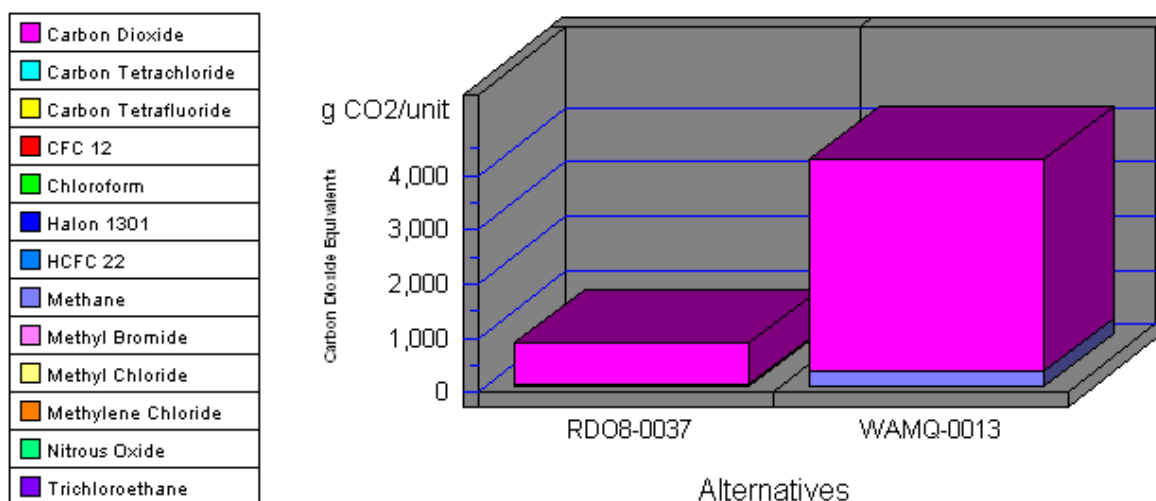
Category	RDO8-0037	WAMQ-0013
First Cost	15.71	7.99
Future Cost-- 3.0%	0.00	0.00
Sum	15.71	7.99

*This is a consumable product. Therefore, future costs are not calculated.

BEES Results: Hair Cleaning Products

Functional Unit: 1 gallon

Global Warming by Flow



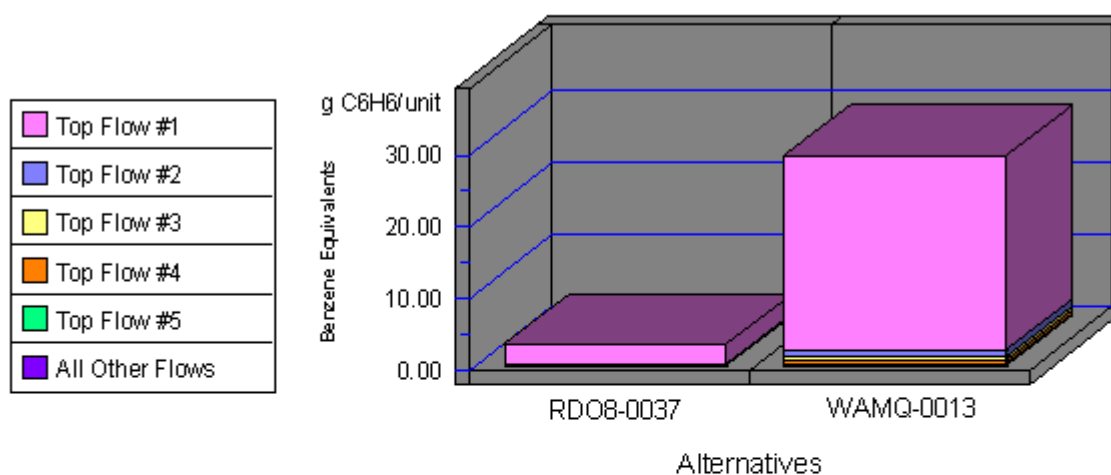
Note: Lower values are better

Category	RDO8-0037	WAMQ-0013
(a) Carbon Dioxide (CO ₂ , net)	760	3909
(a) Carbon Tetrachloride (CCl ₄)	0	0
(a) Carbon Tetrafluoride (CF ₄)	0	0
(a) CFC 12 (CCl ₂ F ₂)	0	0
(a) Chloroform (CHCl ₃ , HC-20)	0	0
(a) Halon 1301 (CF ₃ Br)	0	0
(a) HCFC 22 (CHF ₂ Cl)	0	0
(a) Methane (CH ₄)	43	291
(a) Methyl Bromide (CH ₃ Br)	0	0
(a) Methyl Chloride (CH ₃ Cl)	0	0
(a) Methylene Chloride (CH ₂ Cl ₂)	0	0
(a) Nitrous Oxide (N ₂ O)	2	14
(a) Trichloroethane (1,1,1-CH ₃ Cl)	0	0
Sum	806	4214

BEES Results: Hair Cleaning Products

Functional Unit: 1 gallon

Human Health Cancer by Sorted Flows*



Note: Lower values are better

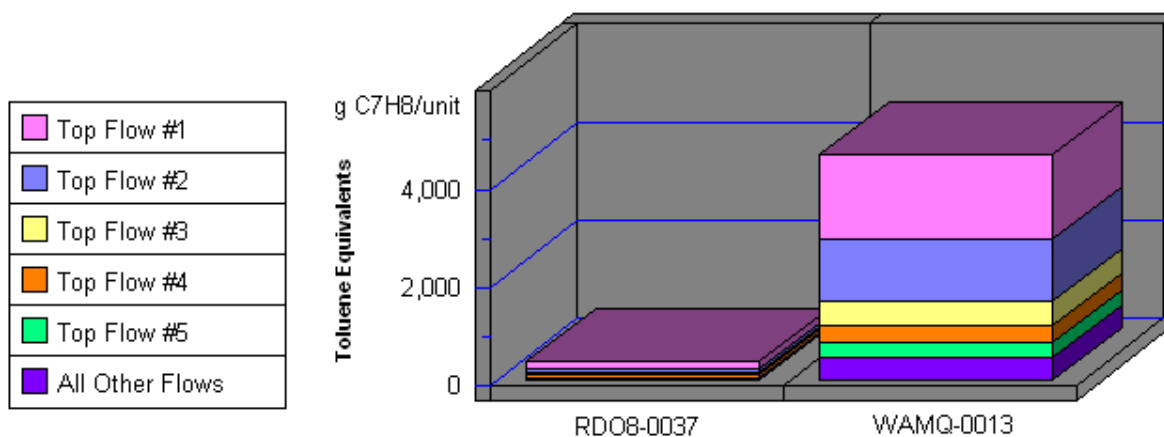
Category	RDO8-0037	WAMQ-0013
Cancer--(a) Ethylene Oxide (C2H4)	2.73	26.91
Cancer--(w) Phenol (C6H5OH)	0.11	0.77
Cancer--(w) Arsenic (As3+, As5+)	0.11	0.72
Cancer--(a) Dioxins (unspecific)	0.03	0.40
Cancer--(a) Arsenic (As)	0.02	0.29
All Others	0.00	0.07
Sum	2.99	29.16

*Sorted by five topmost flows for worst-scoring product

BEES Results: Hair Cleaning Products

Functional Unit: 1 gallon

Human Health Noncancer by Sorted Flows*



Alternatives

Note: Lower values are better

Category	RDO8-0037	WAMQ-0013
Noncancer--(a) Ethylene Oxide (175.07	1,726.91
Noncancer--(a) Mercury (Hg)	60.17	1,270.95
Noncancer--(a) Dioxins (unspeci	33.30	498.20
Noncancer--(w) Barium (Ba++)	66.90	337.28
Noncancer--(a) Lead (Pb)	10.26	297.44
All Others	65.31	482.92
Sum	411.03	4,613.70

*Sorted by five topmost flows for worst-scoring product